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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,937	03/19/2004	Cheng-Pao Chao	SP4009-P-1615-AAA	6707

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EXAMINER

HOFFBERG, ROBERT JOSEPH

ART UNIT	PAPER NUMBER
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2835

DATE MAILED: 03/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/803,937

Applicant(s)

CHAO, CHENG-PAO

Examiner

Robert J. Hoffberg

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

***Detailed Action***

***Specification***

1. The abstract of the disclosure is objected to because the abstract misdescribes the operation of the fuse (lines 6-11). See 35 USC § 112, second paragraph rejection below. Correction is required. See MPEP § 608.01(b).
2. The disclosure is objected to because of the following informalities: The disclosure misdescribes the operation of the fuse (page 2, lines 2-3, page 4, lines 2-3). See 35 USC § 112, second paragraph rejection below. Appropriate correction is required.

***Drawings***

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "33" and "330" has been used to designate both a "retaining plate" and an "L shape notch". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Objections***

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph as to failing to accurately describe the operation of the invention. Claim 1 states "[w]hen the fuse is normal, most of the current flows through the two conductor wires." The two conductor wires #6 and #60 are the lead wires for the light emitting unit #4. Since the first conductor wire #6, the light emitting unit #4 and the second conductor wire #60 are connected in series, the same current flows through all three elements. It is understood by the examiner that during normal operation, most of the current flows through the fuse #5 and the two conductive sheets #3, #30 and a smaller amount of current flows through the light emitting unit #4 and the two conductor wires #6 and #60. Greenberg (US 4,499,447) teaches the operation of a plug-in fuse with a light emitting fault indicator.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reddy et al. (US 5,945,903) in view of Jaronczyk, Jr. (US 5,598,138), and further in view of Greenberg (US 4,499,447).

With respect to Claim 1, Reddy et al. teaches a plug-in fuse comprising: an upper cover plate (Fig. 1, #56) having two ends (Fig. 1, near and far); each end having a respective retaining seats (Fig. 1, #54); the retaining seats having respective chamfered edges (see Fig. 1, bevels on #54); two conductive sheets (Fig. 1, #6 and #6') being formed by conductive material (Col. 6, line 25), an outer side of an upper edge of each conductive sheet being formed with a chamfered edge (Fig. 1, upper outer edge of #6 and #6'), respectively; each of the conductive sheets having a retaining plate (Fig. 1, top of #6 and #6') and a first through hole (Fig. 1, hole in #6 and #6'); an inner upper side of each conductive sheet having an L shape notch (Fig. 1, see inner top side of #6 and #6') and casing (Fig. 1, #58) and a receiving chamber (Fig. 1, inside #58); and a fuse (Fig. 1, #10). Reddy et al. fails to teach conductor wires, retaining grooves and positioning holes in the casing and a light emitting unit. Jaronczyk teaches two conductive sheets (Fig. 4, #12), each of the conductive sheets being connected to a respective conductive wire (Fig. 4, #40); an inner upper side of each conductive sheet having an L shape notch (Fig. 4, inside of #20); a fuse (Fig. 4, #28) installed between the two conductive sheets. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the fuse of Reddy et al. with that of Jaronczyk to provide a light emitting unit to indicate the failure mode of the plug-in fuse. Greenberg teaches a casing (Fig. 12, #41); an upper portion (Fig. 12, #41 top) of the casing being formed with a receiving chamber (Fig. 12, #43a); the casing having two retaining grooves (Fig. 12, between #46 and edge of #41) at two sides of the receiving chamber for receiving the two conductive sheets (Fig. 12, #54); each of the retaining

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grooves having a positioning hole (Fig. 12, #44c). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the fuse of Reddy et al. with that of Greenberg for the purpose of providing a casing to permit assembly of the fuse details and locking the conductive sheets permanently in their assembled position.

With respect to Claim 2, Reddy et al., in view of Jaronczyk and further in view of Greenberg teaches the claimed invention, but they fail to disclose a fuse with a bent. Greenberg further teaches that the fuse is bent (Fig. 12, #55) for increasing a space for receiving the light emitting unit. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the fuse of Reddy et al. with that of Jaronczyk and further in view of Greenberg for the purpose of providing clearance for the light emitting unit and to allow for spring movement and thermal expansion between conductive sheets and fuse element.

With respect to Claim 3, Reddy et al., in view of Jaronczyk and further in view of Greenberg teaches the claimed invention, but they fail to disclose an L shaped notch on each conductive sheet. Jaronczyk further teaches that an inner upper side of each conductive sheet (Fig. 4, #12) has an L shape notch (Fig. 4, inside of #20); the conductive wires (Fig. 4, #40) are welded to the L shape notches so as to form welding portions (Fig. 4, overlap of #40 on #12). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the fuse of Reddy et al. with that of Jaronczyk and further in view of Greenberg for the purpose of providing an

overlap of the conductive wire on the each of the conductive sheets to have electrical conductivity and weld the conductive wires to the conductive sheets.

With respect to Claim 4, Reddy et al., in view of Jaronczyk and further in view of Greenberg teaches the claimed invention, but they fail to disclose a V shaped notch on each conductive sheet. Greenberg further teaches that each of the conductive sheets (Fig. 13, #51), has a V shape notch (Fig. 13, #53) at upper side thereof so that when the conductive sheets are assembled to the upper cover plate (Fig. 12, #43), tip portions of the conductive sheets formed by the V shape notches will tightly combine with the upper cover plate. While Greenberg teaches the upper cover plate is integral with the casing, it has been held that a one-piece construction is obvious to one skilled in the art. *In re Larson*, 340 F.2d 965, 968, 144 USPQ 347, 349 (CCPA 1965). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the fuse of Reddy et al. with that of Greenberg and further in view of Jaronczyk for the purpose of providing an additional means of securing the position of the conductive sheets.

8. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reddy et al. (US 5,945,903) in view of Jaronczyk, Jr. (US 5,598,138), and further in view of Greenberg (US 4,499,447) as applied to claim 1 above, further in view of Chen (US 5,470,164).

With respect to Claim 5, Reddy et al., in view of Jaronczyk and further in view of Greenberg teaches the claimed invention, but they fail to teach the chamfer edges. Chen teaches that the chamfered edges (Fig. 3, #left inside end of #30) to

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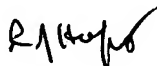
accommodate a light emitting unit (Fig. 3, #25). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the fuse of Reddy et al. in view of Greenberg and further in view of Jaronczyk with that of Chen to provide a smooth tapered recess by a chamfer to guide and protect the light emitting unit into its assembled position.


### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert J. Hoffberg whose telephone number is (571) 272-2761. The examiner can normally be reached on 8:30 AM - 4:30 PM Mon - Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn D. Feild can be reached on (571) 272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RJH 

  
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